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U. S. DEPARTMENT OF AGRICULTURE

FEDERAL-STATE COOPERATIVE

SNOW SURVEYS AND IRRIGATION WATER FORECASTS

for

Colorado River Drainage Basin

By

Division of Irrigation, Soil Conservation Service
United States Department of Agriculture
and
Colorado Agricultural Experiment Station

Data included in this report were obtained by the agencies named above in cooperation with the U. S. Forest Service, National Park Service, State Engineers of Colorado, Wyoming and New Mexico and other Federal, State and local organizations.

As of
APR. 1, 1950

WATER SUPPLY OUTLOOK

COLORADO RIVER DRAINAGE

April 1, 1950

Snow accumulation on the headwaters of the Upper Colorado River varied from about 140 percent of normal on the Green River in Wyoming to about 50 percent of normal in local areas of Southern Colorado and Northern New Mexico. Soil moisture conditions are fair to good in Colorado and excellent in Wyoming.

The snow cover at high elevations in Arizona is very low with most courses bare as of April 1. Reservoir storage is below last year and generally below the past ten year average.

COLORADO RIVER AND TRIBUTARIES IN COLORADO

Colorado River (above Glenwood Springs): The snow cover on the Colorado River above Glenwood Springs is 97 percent of normal and 83 percent of a year ago. Similar conditions exist on the Roaring Fork. On the Grand Mesa snow cover is slightly above average. There are no locations on this watershed where the water supply outlook is substantially above or average. Storage in Green Mountain reservoir is now 77,000 acre-feet as compared to 62,000 a year ago. Stream flow is reported as about normal. Valley precipitation has been deficient but soil moisture conditions are described as fair to good.

Gunnison River: The water supply outlook on the Gunnison River is similar to the Colorado. Snow cover is relatively high on the North Fork and other areas north of the river. Deficiencies in snow cover exist from Marshall Pass along the Continental Divide west to the headwaters of the Uncompahgre. At high elevations near Red Mountain Pass the seasonal snow accumulation has been much less than elsewhere in Western Colorado. Soil moisture conditions are fair to good. Storage in Taylor Park reservoir is now 72,000 acre-feet as compared to 65,000 on April 1, 1949.

Yampa and White Rivers: On the Yampa River the snow cover is above normal with relatively higher snow on the Elk and Snake River tributaries. On the White River snow accumulation is up to 90 percent of normal. Streamflow is above average and soil moisture conditions are described as good. The summer discharge of these streams should be normal or slightly above.

Miscellaneous Series Paper No. 463 - Colorado Agricultural Experiment Station

San Juan and Animas Rivers: There is considerable variation in the snow cover over the San Juan River drainage in respect to normal. Along the Continental Divide the April 1 snow surveys show near average snow cover near Wolf Creek Pass but there is a rapid decrease to the south and west of this area. There is practically no snow on the New Mexico tributaries. On the Animas River there has been some improvement in the water supply outlook during the past month but the summer flow of this stream will be much below average. Soil moisture conditions on this watershed are reported as from fair to good. Storage in Vallecito reservoir is now 55,000 acre-feet as compared to 33,000 on April 1, 1949.

Dolores River: Snow cover on the Dolores River is 92 percent of average which represents very little increase in snow accumulation during March. Summer flow of the Dolores and San Miguel rivers will be less than average and considerably less than a year ago. The snow near Groundhog Reservoir is slightly less than average for this date. Winter precipitation has been deficient and soil moisture conditions are described as fair to poor.

COLORADO RIVER
IN WYOMING AND UTAH

On the Green River in Wyoming the snow cover is well above average and last year. The soil of the high range and meadow lands is wet. The 1950 summer flow of this stream at Linwood, Utah, is expected to be much above average. On the Duchense River, tributary to the Green in Utah, snow cover is 40 percent above average but slightly less than for April 1, 1949. In the central part of the state snow cover is less than average. The water supply outlook for the Virgin River in Southern Utah is definitely below average.

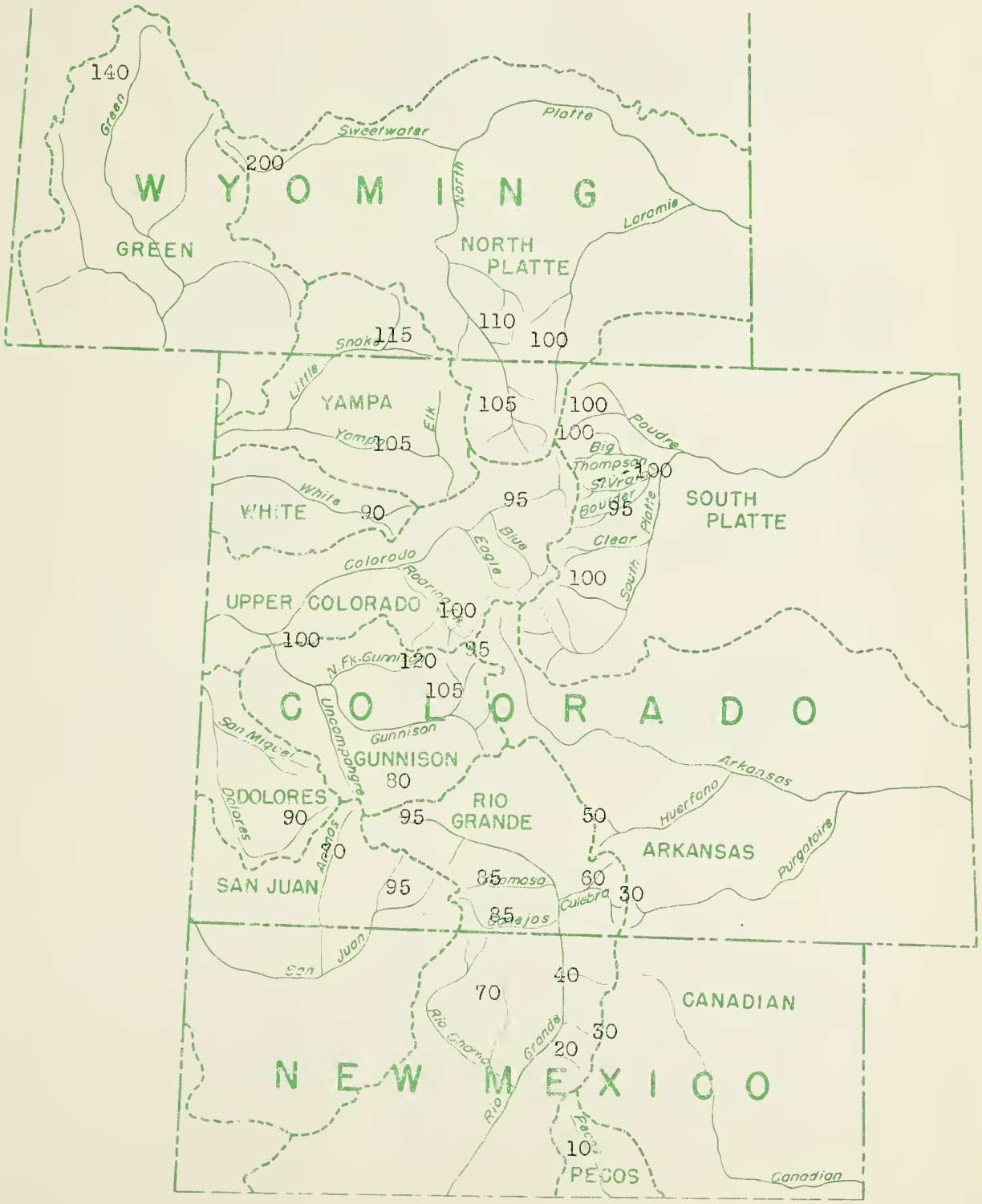
COLORADO RIVER
IN ARIZONA

There is practically no snow at high elevations in Arizona as of this date. Since below average snow conditions have existed throughout this area during the winter months, the spring and summer discharge of streams as a result of snow melt will be much below average. Soil moisture conditions on the mountain ranges is good as of this date. In irrigated areas the soil is drying at a rapid rate and conditions are poor on the Gila watershed. Streamflow is below normal with about 600 second-feet reported for the Salt River and 300 for the Verde. San Carlos reservoir has in storage about 73,000 acre-feet as compared to 260,000 last year and 251,000 for the past ten-year average.

The net storage in Lake Mead is now 17,686,000 acre-feet which is practically the same as on April 1, 1949.

WATER CONTENT OF SNOW ON THE WATERSHEDS OF PLATTE, ARKANSAS, UPPER COLORADO AND RIO GRANDE BASINS BASED ON SNOW SURVEYS MADE APPROXIMATELY FIRST DAY OF MONTH

In Percent of Normal
April 1, 1950



COLORADO RIVER DRAINAGE BASIN
STREAM FLOW FORECASTS, April 1, 1950

BASIN AND STREAM	April-Sept., Incl., Streamflow, Acre Feet				
	Forecast 1950	Measured Runoff 1949	1948	1947	10-year Avg. 1939-1948
GREEN					
Green at Linwood, Utah	1,500,000	1,145,000	1,077,000	1,817,000	1,133,000
Little Snake at Lily	375,000	493,000	285,000	342,000	319,000
Elk at Clark	225,000	267,000	189,000	234,000	199,000
Yampa at Steamboat Springs	290,000	340,000	291,000	333,000	271,000
White at Meeker	275,000	403,000	332,000	405,000	310,000
COLORADO					
Colorado near Granby	170,000*	137,000	152,000	250,000	186,000
Willow Creek near Granby	35,000	56,000	38,000	49,000	37,000
Frazer at Granby	100,000*	122,000	91,000	162,000	92,000
Blue above Green Mt. Res.	300,000	318,000	292,000	381,000	287,000
Colorado at Glenwood Springs	1,400,000	1,672,000	1,477,000	1,880,000	1,409,000
Roaring Fork at Glenwood Springs	725,000	799,000	887,000	1,008,000	738,000
Plateau Creek at Collbran	65,000	58,000	58,000	68,000	53,000
Gunnison at Iola	475,000	673,000	737,000	613,000	547,000
Uncompahgre at Colona	130,000	195,000	183,000	179,000	176,000
Surface Creek near Cedaredge	15,000	15,000	29,000	19,000	18,000
Gunnison at Grand Junction	1,400,000	1,750,000	1,965,000	1,509,000	1,500,000
San Juan at Rosa, N. M.	650,000	463,000	797,000	440,000	684,000
Piedra Creek at Piedra	190,000	307,000	230,000	161,000	195,000
Los Pinos near Bayfield	200,000	314,000	321,000	185,000	215,000
Florida near Durango	50,000		93,000	60,000	70,000
Animas at Durango	350,000	771,000	569,000	540,000	510,000
La Plata at Hesperus	25,000		32,000	23,000	28,000
Dolores at Dolores	250,000		350,000	288,000	314,000
San Miguel at Naturita	200,000	223,000	280,000	180,000	275,000
Colorado near Grand Canyon-Ariz.	9,750,000	11,645,000	10,286,000	10,986,000	9,522,000

* Including Diversions

SNOW SURVEYS AND IRRIGATION WATER FORECASTS

COLORADO RIVER BASIN

STATUS OF RESERVOIR STORAGE, APRIL 1, 1950

BASIN AND STREAM	RESERVOIR	USABLE CAPACITY (Thous.A.Ft.)	THOUSANDS ACRES FEET IN STORAGE ABOUT April 1				
			1950	1949	1948	1947	10-yr.Avg. 1939-1948
COLORADO DRAINAGE							
Taylor River	Taylor Park	106.2	72.6	65.0	87.4	70.1	68.0
Los Pinos River	Vallecito	126.3	55.0	33.5	57.1	60.1	35.5
Groundhog Creek	Groundhog	21.7	8.0	6.0	11.0	8.0	11.2
Blue River	Green Mountain	146.9	77.2	--	56.0	72.4	52.5
Colorado River	Lake Mead	27935.0	17686.0	17735.0	18620.0	16383.0	19239.5
Colorado River	Lake Havasu	668.0	663.8	605.3	607.5	649.0	556.9
SALT AND GILA DRAINAGE							
Salt River	Roosevelt	1420.0	311.0	331.3	54.6	80.6	586.6
" "	Horse Mesa	245.0		140.7	157.6	234.1	195.1
" "	Mormon Flat	58.0		35.5	23.0	40.6	41.4
" "	Stewart Mt.	70.0		37.2	36.6	52.2	41.9
Verde River	Bartlett	179.5	70.0	117.6	19.6	10.3	65.2
Aqua Fria River	Carl Pleasant	173.0		62.7	--	--	39.5
Gila River	San Carlos	1200.0	73.3	--	--	14.6	251.4
Verde River	Horseshoe	67.0		--	12.6	13.1	17.8

Arizona reservoirs as of March 15, 1950

PRECIPITATION DATA

WATERSHED	STATE	Precipitation October 1 to March 31	Departure from Normal	Precipitation March	Departure from Normal
		Inches	Inches	Inches	Inches
Colorado	Colorado	8.08	-1.19	1.22	-0.69
Green	Wyoming	5.48	+1.85	0.70	-0.10
San Juan	New Mexico	3.65	-1.88	0.44	-0.50
Colorado	Arizona	5.90	-2.71	0.69	-0.80
Gila	Arizona	5.40	-2.95	0.42	-0.88

*Some for shorter periods.

SNOW SURVEYS AND IRRIGATION WATER FORECASTS
for
COLORADO RIVER BASIN
April 1, 1950

SUMMARY OF APRIL 1 SNOW SURVEYS AND COMPARISON OF DATA WITH THAT OF PREVIOUS YEARS BY WATERSHEDS

WATERSHEDS	Snow Depth			Water Content			Number Courses in Average	Snow Density			1950 Water Content in percent of	
	Fourteen year Avg.*	1949	1950	Fourteen year Avg.*	1949	1950		Fourteen year Avg. *	1949	1950	Fourteen year Avg.*	1949
COLORADO RIVER	In.	In.	In.	In.	In.	In.		Percent	Percent	Percent		
Colorado River**	46.7	54.2	46.4	13.9	16.3	13.5	19	30	30	28	97	83
Roaring Fork	34.3	39.4	34.3	10.1	12.3	9.9	2	29	31	29	98	81
Plateau Creek	70.8	81.8	68.3	23.2	25.9	20.6	2	33	32	36	106	95
Yampa River	61.8	71.3	65.7	20.9	27.6	22.4	5	34	39	35	107	81
White River	51.1	61.7	47.7	17.4	22.8	15.7	2	34	37	33	90	69
Gunnison River	52.0	61.4	48.7	16.7	19.6	17.0	10	32	31	35	102	87
Green River	44.0	55.0	53.3	13.8	18.0	18.3	19	31	33	34	102	132
Dolores River	37.7	47.5	28.0	12.2	17.9	11.2	4	32	37	40	92	63
San Juan River	42.4	60.3	30.2	14.7	21.7	11.7	7	35	36	39	80	54
Animas River	33.4	46.6	17.8	10.5	15.6	5.5	3	31	33	31	52	35
Lower Colorado	8.1	18.0	6.1	3.0	5.9	2.2	4	37	33	36	73	37
Gila River	1.4	4.2	0	0.6	1.6	0	3	42	38	0	0	0
Salt River	1.0	1.9	0	0.5	0.9	0	5	50	47	0	0	0
Verde River	6.1	13.0	0	2.2	4.6	0	6	36	35	0	0	0
Little Colo. River	0.7	1.8	0	0.4	0.4	0	3	57	22	0	0	0
Williams River	0.8	3.0	0	0	0.2	0	2	0	6	0	0	0
Colorado***	36.5	55.0	27.6	11.1	17.2	9.1	5	30	31	33	81	47
Duchesne River	49.8	63.0	63.9	15.6	23.6	21.8	5	31	37	34	140	93
Virgin**	41.2	51.5	28.6	15.9	19.1	11.5	5	38	37	40	73	60

*Some for shorter periods
**Colorado (above Glenwood Springs)
***Colorado (Green to Virgin Rivers)

COLORADO RIVER DRAINAGE SNOW SURVEYS
April 1, 1950

Drainage Basin and Snow Course	Location: No. and State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (Inches)	Snow Cover Measurements: Water Content (Inches) 1950	1949	1948	past Record: Yrs. of Record	Av. Water Content (Inches)
					COLORADO RIVER							
COLORADO RIVER (Above Glenwood Springs)												
Cameron Pass*	1 Colo.	2	6N	76W	10300	3/31	53.5	18.5	27.8	21.8	14	21.3
Park View*	7 "	24	5N	78W	9200	4/2	41.0	12.5	14.6	10.0	14	10.3
Phantom Valley	12 "	7	5N	76W	9300	3/31	31.2	9.9	13.1	11.2	14	9.8
Hoosier Pass	14 "	13	8S	78W	11400	3/31	38.7	10.6	12.8	15.5	14	12.1
Berthoud Pass	16 "	35	2S	75W	9700	4/2	49.2	14.7	17.0	17.1	14	15.9
Tennessee Pass	19 "	21	8S	80W	10200	3/29	38.9	9.2	7.3	12.1	14	8.9
M.Fork Camp Gr.	37 "	16	3S	77W	9000	4/2	35.4	8.2	9.7	8.1	14	9.8
Fiddler Gulch	44 "	1	8S	80W	11000	4/2	53.9	16.4	17.3	19.2	14	14.9
Lulu	59 "	25	6N	76W	10200	3/30	55.9	16.9	19.1	17.3	12	16.8
Willow Creek P.	62 "	1	4N	78W	9500	4/2	51.7	17.6	19.5	14.2	12	12.7
N.Inlet Grand L.	64 "	26	4N	75W	9000	4/2	27.5	7.6	12.6	11.4	12	9.3
Lake Irene	65 "	8	5N	75W	10600	4/1	61.4	20.9	29.9	23.8	12	21.0
Thunderbolt Peak	66 "	22	2N	74W	9500	4/2	39.0	12.0	18.6	18.1	12	16.6
Arrow	69 "	34	1S	75W	9900	3/27	33.8	9.7	12.0	12.7	12	9.8
Lapland	70 Colo.	16	2S	76W	9500	3/31	44.4	14.7	13.1	13.7	12	10.9
Fremont Pass #2	79 "	2	8S	79W	11400	3/27	59.5	16.2	15.6	17.3	14	15.8
Lynx Pass	91 "	27	2N	83W	9100	3/29	46.8	12.6	13.6	14.1	14	12.8
Shrine Pass	96 "	15	6S	79W	10500	3/27	59.3	17.5	17.5	19.4	8	17.3
Grizzly Peak	97 "	2	5S	76W	11250	3/26	60.0	19.1	18.7	16.4	8	17.4
Glen-Mar Ranch	102 "	31	2S	77W	8850	4/2	31.1	6.5	8.8	8.0	3	9.1
Monarch Lake	106 "	30	2N	74W	8500	4/2	24.0	6.2	11.2	13.6	2	12.4
Granby	113 "	11	2N	77W	8700	4/2	24.1	7.4	8.5	--	1	--
Grand Lake	127 "	36	4N	75W	8600	3/31	26.0	6.0	11.4	--	1	--
		Average for drainage					46.4	13.5	16.3	15.4		13.9
ROARING FORK												
Ind.Pass Tunnel	33 Colo.	30	11S	82W	10200	4/6	52.3	20.0	17.7	18.1	14	18.3
N.Lost Trail Cr.	34 "	20	11S	87W	9200	4/2	44.3	13.7	18.2	17.3	14	14.4
Nast	45 "	1	9S	83W	8700	4/2	24.2	6.0	6.4	6.4	14	5.7
Ivanhoe	100 "	12	9S	82W	10400	3/29	50.9	13.9	19.7	--	3	16.4
Woods Lake	131 "	2	8S	83W	11000	4/2	56.6	17.2	--	--	--	--
		Average for drainage					34.3	9.9	12.3	11.9		10.1

*On adjacent drainage

COLORADO RIVER SNOW SURVEYS
April 1, 1950

Drainage Basin and Snow Course	Location: No. and state	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (Inches)	Snow Cover Measurements: Water Content (Inches) 1950	1949	1948	Past Record: Yrs. of Record	Av. Water Content (Inches)
					COLORADO RIVER							
PLATEAU CREEK												
Mesa Lakes	56 Colo.	35	11S	96W	10000	3/29	51.8	15.4	18.5	21.1	13	18.1
Trickle Divide	85 "	23	11S	94W	10000	4/2	84.7	33.8	33.3	29.8	10	28.3
			Average for drainage				68.3	24.6	25.9	25.5		23.2
YAMPA RIVER												
Dry Lake	6 Colo.	26	7N	84W	8200	3/31	55.4	20.0	24.2	21.7	14	20.3
Columbine Lodge*	8 "	21	5N	82W	9300	3/30	73 6	24.3	28.9	25.2	14	22.5
Elk River	9 "	6	10N	85W	8700	3/31	56.7	18.2	23.4	18.0	14	17.1
Lynx Pass	91 "	27	2N	83W	9100	3/29	46.8	12.6	13.6	14.1	14	12.8
Old Battle*	9 Wyo.	29	14N	85W	9800	4/2	96.2	37.0	47.7	30.6	14	31.9
			Average for drainage				65.7	22.4	27.6	21.9		20.9
WHITE RIVER												
Burro Mountain	35 Colo.	15	2S	91W	9000	4/1	55.3	17.2	23.1	21.2	14	18.9
Rio Blanco	36 "	28	1N	88W	8500	4/1	40.1	14.2	22.5	16.9	14	15.8
			Average for drainage				47.7	15.7	22.8	19.1		17.4
GUNNISON RIVER												
Crested Butte	18 Colo.	22	13S	86W	9000	4/3	49.2	16.9	15.1	15.3	14	14.7
Marshall Creek	42 "	24	48N	6E	10800	4/2	31.4	9.4	14.8	13.8	14	13.2
Poncha Creek*	43 "	19	48N	7E	10500	4/2	24.6	7.5	13.7	11.9	14	11.3
Park Cone	46 "	19	14S	82W	9700	4/3	44.3	13.8	15.6	12.6	13	9.9
Alexander Lake	53 "	2	12S	25W	10000	3/31	68.9	23.8	26.1	26.6	13	24.1
Snowshoe Mesa	55 "	14	13S	89W	7500	4/1	28.4	11.6	8.2	9.8	13	7.9
Ironton Park	58 "	29	43N	7W	9800	4/1	27.1	7.3	19.3	16.9	13	14.7
Trickle Divide	85 "	23	11S	94W	10000	4/2	84.7	33.8	33.3	29.8	10	28.3
Park Reservoir	87 "	34	11S	94W	9500	4/2	80.7	31.6	30.1	27.8	10	25.8
Porphyry Creek	89 "	19	49N	6E	10800	3/28	47.6	14.2	20.2	17.7	10	17.4
Kannah Creek	101 "	5	12S	95W	10700	3/29	65.3	22.7	26.1	30.1	3	27.7
Lake City	104 "	13	43N	4W	10300				10.3	9.2	2	9.8
Spring Cr. Pass	123 "	2	42N	3W	10900	4/2	28.0	8.2	18.8	--	1	--
Cochetopa Pass	126 "	12	45N	3E	10000	3/31	14.2	3.0	8.3	--	1	--
McClure Pass	132 "	1	11S	89W	9500	4/2	49.4	18.5	--	--	--	--
			Average for drainage				48.7	17.0	19.6	18.2		16.7

*In adjacent drainage

COLORADO RIVER SNOW SURVEYS
April 1, 1950

Drainage Basin and Snow Course	Location: No. and State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (Inches)	Snow Course Measurements: Water Content (Inches) 1950	1949	1948	Past Record: Yrs. of Record	Av. Water Content (Inches)
					COLORADO RIVER							
SAN JUAN RIVER												
Wolf Creek Pass*	26 Colo.	4	37N	2E	10000	3/31	78.3	31.2	42.3	39.3	14	30.6
Upper San Juan	29 "	10	37N	1E	10000	3/31	87.1	34.1	47.2	43.7	14	34.4
Silverton Sub.S.	30 "	10	41N	7W	9400	3/31	6.3	1.9	6.6	8.4	14	5.0
Cascade	31 "	12	39N	9W	8850	3/31	20.0	7.4	20.8	17.8	14	11.7
Granite Peaks	93 "	24	37N	6W	7950	4/4	0	0	10.3	6.0	9	8.2
La Plata	135 "	4	36N	11W	9700	4/1	31.5	13.7	--	--	-	--
Chama Divide*	17 N.Mex		36.9N	106.7W	7750	3/31	0	0	8.8	5.2	10	3.8
Chamita*	18 "		36.9N	106.7W	8500	3/31	19.5	7.3	15.1	12.6	8	9.4
			Average for drainage				30.2	11.7	21.7	19.0		14.7
ANIMAS RIVER												
Silverton Sub.S.	30 Colo.	10	41N	7W	9400	3/31	6.3	1.9	6.6	8.4	14	5.0
Cascade	31 "	12	39N	9N	8850	3/31	20.0	7.4	20.8	17.8	14	11.7
Ironton Park	58 "	29	43N	7W	8700	4/1	27.1	7.3	19.3	16.9	13	14.7
			Average for drainage				17.8	5.5	15.6	14.4		10.5
DOLORES RIVER												
Rico	23 Colo.	11	39N	11W	8700	3/31	15.7	8.0	13.5	10.4	14	8.5
Telluride	24 "	6	42N	8W	8600	3/31	19.2	7.4	10.7	9.8	14	7.6
Lizard Head	25 "	24	41N	10W	10300	3/31	43.9	18.1	30.4	22.6	14	20.0
Lone Cone	90 "	23	41N	13W	8900	3/31	33.1	11.1	16.9	12.4	9	12.8
Trout Lake	114 "	8	41N	9W	9700	3/31	41.0	9.2	17.2	--	1	--
			Average for drainage				28.0	11.2	17.9	13.8		12.2
GILA RIVER												
Frisco Divide	11 N.Mex.	21	6S	20W	8000	3/31	0	0	--	3.9	11	2.6
State Line	14 "	6	6S	21W	8000	4/1	0	0	--	1.8	11	0.5
Taylor Creek	22 "	20	10S	10W	7850	4/1	0	0	0.5	0.0	8	0.1
Inman	23 "	6	11S	10W	7800	4/1	0	0	0.5	0.0	4	0.1
Nutrioso	3 Ariz.	23	6N	30E	8500	3/31	0	0	1.1	2.9	12	0.5
Beaver Head	4 "	13	4N	30E	8000	4/1	0	0	--	2.9	10	0.9
Coronado Trail	5 "	26	5N	30E	8000	4/1	0	0	3.2	4.1	12	1.2
Rose Canyon	8 "	15	12S	16E	7300	4/1	0	0	1.0	0.0	--	--
Bear Wallow	9 "	6	12S	16E	8100	4/1	0	0	2.7	0.0	--	--
			Average for drainage				0	0	1.6	2.3		0.6

*On adjacent drainage

COLORADO RIVER SNOW SURVEYS
April 1, 1950

Drainage Basin and Snow Course	Location: No. and State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (Inches)	Snow Course Measurements: Water Content (Inches) 1950	1949	1948	Past Record: Yrs. of Rec.	Av. Water Content (Inches)
					COLORADO RIVER							
SALT RIVER												
Forest Dale	1 Ariz.	2	9N	21E	6000	3/31	0	0	0.0	0.0	11	0.0
McNary	2 "	14	8N	23E	7200	3/31	0	0	0.0	0.0	11	0.7
Nutrioso	3 "	23	6N	30E	8500	4/1	0	0	1.1	2.9	12	0.5
Coronado Trail	4 "	26	5N	30E	8000	4/1	0	0	3.2	4.1	12	1.2
Milk Ranch	5 "	28	8N	23E	7000	4/1	0	0	0.0	0.0	8	0.0
Gentry	7 "	36	11N	15E	7600	3/31	0	0	--	--	-	--
Heber	8 "	28	11N	15E	7600	3/30	0	0	--	--	-	--
Canyon Creek	9 "	18	11N	15E	7500	3/30	0	0	--	--	-	--
Elk	10 "	31	11N	14E	7600	3/31	0	0	--	--	-	--
Big Lake Knoll	11 "	2	5N	28E	8800	3/31	5.4	1.4	--	--	-	--
Maverick Fork	12 "	13	6N	27E	9050	3/31	5.7	1.5	--	--	-	--
Baldy	13 "	28	7N	27E	9000	3/31	0	0	--	--	-	--
Fort Apache	14 "	18	7N	27E	9000	4/1	0	0	--	--	-	--
Pacheta	15 "				7800	4/1	0	0	--	--	-	--
		Average for drainage					0	0	0.9	1.4		0.5
LITTLE COLORADO RIVER												
Forest Dale*	1 Ariz.	2	9N	21E	6000	3/31	0	0	0.0	0.0	11	0.0
McNary	2 "	14	8N	23E	7200	4/1	0	0	0.0	1.3	11	0.7
Nutrioso*	3 "	23	6N	30	8500	4/1	0	0	1.1	2.9	12	0.5
Mormon Lake	4 "	13	18N	8E	7350	4/1	0	0	15.3	10.0	3	8.4
Fort Valley	5 "	22	22N	6E	7350	3/31	0	0	5.9	0.1	3	2.0
Gentry	7 "	36	11N	15E	7600	4/1	0	0	--	--	-	--
Heber	8 "	28	11N	15E	7600	4/1	0	0	--	--	-	--
Canyon Creek	9 "	18	11N	15E	7500	4/1	0	0	--	--	-	--
Elk	10 "	31	11N	14E	7600	4/1	0	0	--	--	-	--
Mormon Mt.	11 "	14	18N	8E	7500	4/1	0	0	--	--	-	--
		Average for drainage					0	0	0.4	1.4		0.4

*On adjacent drainage

COLORADO RIVER SNOW SURVEYS
April 1, 1950

Drainage Basin and Snow Course	Location: No. and State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (Inches)	Water Content (Inches) 1950	1949	1948	Past Record: Yrs. of Record	Av. Water Content (Inches)
					COLORADO RIVER							
VERDE RIVER												
Iron Springs*	1 Ariz.	22	14N	3W	6200	3/30	0	0	0.0	0.0	4	0.0
Camp Wood	2 "	3	16N	6W	5700	3/31	0	0	0.3	0.0	4	0.0
Mingus Mountain	3 "	3	15N	2E	7100	3/30	0	0	0.0	0.0	3	0.0
Mormon Lake*	4 "	13	18N	8E	7350	3/31	0	0	15.3	10.0	3	8.4
Fort Valley*	5 "	22	22N	6E	7350	4/1	0	0	5.9	0.1	3	2.0
Chalender*	6 "	27	22N	3E	7100	4/1	0	0	5.9	1.7	3	2.5
Munds Park	8 "	7	18N	7E	6500	3/31	0	0	--	--	-	--
Kasner Park	9 "	19	18N	8E	6930	4/1	0	0	--	--	-	--
Antelope Park	10 "	29	19N	8E	7300	4/1	0	0	--	--	-	--
Mormon Mt.	11 "	14	18N	8E	7500	4/1	0	0	--	--	-	--
		Average for drainage					0	0	4.6	2.0		2.2
WILLIAMS RIVER												
Iron Spring	1 Ariz.	22	14N	3W	6200	3/31	0	0	0.0	0.0	4	0.0
Camp Wood*	2 "	3	16N	6W	5700	3/31	0	0	0.3	0.0	4	0.0
Willow Ranch	3 "	16	21N	11W	5000	3/31	0	0	--	--	2	0.0
		Average for drainage					0	0	0.2	0		0
LOWER COLORADO RIVER												
Bright Angel	1 Ariz.	34	33N	4E	8400	4/1	24.2	8.6	--	10.1	2	5.4
Grand Canyon	2 "	21	30N	4E	7500	3/31	0	0	--	1.5	2	1.9
Fort Valley	5 "	22	22N	6E	7350	3/31	0	0	5.9	0.1	3	2.0
Chalender	6 "	27	22N	3E	7100	4/1	0	0	5.9	1.7	3	2.5
		Average for drainage					6.1	2.2	5.9	3.5		3.0

COLORADO RIVER SNOW SURVEYS, April 1, 1950

Drainage Basin and Snow Course	No. and State	Location				Date of Survey	Snow Depth (Inches)	Snow Course Measurements				
		Sec.	Twp.	Range	Elev.			Water Content (Inches) 1950	1949	1948	Past Record Yrs. of Record	Past Record Av. Water Content@ (Inches)
GREEN RIVER												
East Rim Divide	44 Wyo.	32	37N	111W	7950	4/3	54.0	17.4	12.5	7.7	14	11.1
Dutch Joe	23 "	33	31N	104W	8700	3/31	36.6	11.2	--	--	11	
Mulligan Park	24 "	17	35N	108W	8900	3/31	48.9	15.0	11.1	7.0	14	10.2
Kendall R.S.	25 "	23	38N	110W	7900	3/31	46.1	13.1	15.0	6.3	13	11.3
Loomis Park	26 "	14	37N	111W	8500	3/31	69.2	26.6	19.6	15.3	14	15.7
Snyder Basin R.S.	27 "	15	29N	114W	8040	3/30	48.9	19.2	16.3	12.8	13	12.3
Piney-LaBarge	28 "	19	29N	114W	8820	3/30	70.6	24.4	20.7	17.1	13	16.9
Daniels-Stwbrry	23 Utah	17	2S	12W	8000	3/31	55.3	20.3	22.4	14.3	14	15.0
Lost Lake	28 "	4	2S	9E	9900	3/26	103.7	35.7	29.5	19.7	12	24.2
East Portal	33 "	36	7W	6E	7600	3/30	49.9	17.4	17.4	9.8	14	12.3
E.Port.Strawbry D	33A "	34	7S	6E	8000	3/30	74.5	26.0	26.5	17.2	14	20.7
Hewinta R.S.	34 "	33	3N	13E	9500	3/25	43.6	11.6	--	12.2	10	9.4
Hole- In-Rock	35 "	13	2N	15E	9150	4/2	43.6	11.6	8.9	8.1	13	6.0
Lake Fork Mtn.	36 "	2	2N	5W	10500	3/29	56.5	16.0	15.6	10.2	14	10.6
Paradise Park	37 "	7	3N	1E	10500	4/1	60.1	19.9	14.9	14.4	13	12.3
Mosby Mtn.No.2	38 "	5	2N	1E	9500	4/1	51.8	17.0	14.6	11.8	11	10.5
King's Cabin	39 "	22	1S	21E	8800	3/30	48.4	13.1	16.2	13.0	14	10.5
Indian Canyon	40 "	2	11S	10E	9100	4/1	43.3	15.6	20.1	10.1	14	11.0
Gooseberry Res.	41 "	25	11S	5E	8700	3/31	60.3	22.9	25.1	17.3	14	20.3
Mammoth R.S.	42 "	13	13S	5E	8800	3/31	61.2	23.8	26.2	17.6	14	21.6
Staley Ranch	42A "	32	12S	7E	7600	4/2	20.6	8.5	9.7	7.0	10	6.0
Dry Valley Divide	42B "	20	12S	8E	7800	4/2	36.8	15.0	17.4	6.3	11	9.2
Hntngtn-Hrseshoe	43 "	12	14S	5E	9800	3/31	60.4	21.6	27.3	23.0	14	25.6
Widtsoe Esclnte	53 "	22	34S	1W	9500	3/31	8.5	3.0	19.6	10.8	13	10.3
Average for drainage							53.3	18.3	18.0	12 6		13.8

@Average for period of record

COLORADO RIVER SNOW SURVEYS, April 1, 1950

Drainage Basin and Snow Course	Location					Date of Survey	Snow Depth (Inches)	Snow Course Measurements				
								Water Content (Inches)			Past Record	
	No. and State	Sec.	Twp.	Range	Elev.			1950	1949	1948	Yrs. of Record	Av. Water Content@ (Inches)
COLORADO (Green to Virgin Rivers)												
Seeley Cr.R.S.	48 Utah	25	17S	4E	10000	3/30	33.8	11.6	20.3	13.7	12	16.9
Fish Lake	51 "	35	26S	1E	8700	3/28	29.5	8.1	9.6	8.8	14	6.7
Bryce Canon NP.*	54 "	36	36S	4W	8000	3/30	0	0	11.5	7.2	12	5.7
La Sal Mountain	64 "	29	26S	24E	8500	3/31	34.5	12.5	18.3	12.7	14	10.2
Buckboard Flat	65 "	36	33S	22E	9000	3/29	40.2	13.1	26.3	16.7	13	15.8
			Average for drainage				27.6	9.1	17.2	11.8		11.1
VIRGIN RIVER												
Gravel Spgs.Jnct.	56 Utah	22	38S	6W	7500	3/30	0	0	8.5	2.7	14	5.7
Harris Flat R.S.*	57 "	24	38S	7W	7700	3/24	19.8	8.7	14.8	8.1	14	10.2
Duck Creek R.S.*	58 "	11	38S	8W	8560	3/24	36.9	15.5	21.7	14.4	13	17.3
Cedar Breaks*	59 "	13	37S	9W	10200	3/24	48.4	19.1	28.8	21.2	14	26.3
Webster Flats RS*	61	20	37S	9W	9200	3/23	37.7	14.1	21.7	17.8	14	20.1
			Average for drainage				28.6	11.5	19.1	12.8		15.9
DUCHESNE RIVER												
Daniels-Stwbrry	23 Utah	7	2S	12W	8000	3/31	55.3	20.3	22.4	14.3	14	15.0
Lost Lake	28 "	4	2S	9E	9900	3/26	103.7	35.7	29.5	19.7	12	24.2
East Portal	33 "	36	7S	6E	7600	3/30	49.9	17.4	17.4	9 8	14	12.3
E.Port.Strwbry D.	33A "	34	7S	6E	8000	3/30	74.5	26.0	26.5	17.2	14	20.7
Lake Fork Mtn.	36 "	2	2N	5W	10500	3/29	56.5	16.0	15.6	10.2	14	10.4
Indian Canyon	40 "	2	11S	10E	9100	4/2	43.3	15.6	31.2	10.1	14	11.0
			Average for drainage				63.9	21.8	23.6	13.6		15.6

*On adjacent drainage.

@Average for period of record.

Federal - State - Private

COOPERATIVE SNOW SURVEYS

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Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation, navigation, mining and industry

"WATER IS THE WEST'S GREATEST RESOURCE"